

U. Barrow  
2-15-84

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Appln. of: Gene A. Bornzin } Group Art Unit: 335  
Serial No: 323,507 } Docket No: P-552  
Filed: 23 November 1981 } Examiner: W. Kamm  
For: A RATE ADAPTIVE DEMAND } Date: February 1, 1984  
PACEMAKER }

Honorable Commissioner of Patents & Trademarks  
United States Patent & Trademark Office  
Washington, DC 20231

U. Barrow

Dear Sir:

AMENDMENT

Please amend the above application as indicated herein below.

In the Claims:

Please cancel Claims 1 through 5 in their entirety.

Please add new Claims 9 through 12 as follows:

~~2.~~ A demand heart pacemaker for providing stimulating pulses to the heart at a predetermined rate in the absence of naturally occurring heartbeats, comprising:

*P<sub>i</sub>* sensing means for sensing naturally occurring electrical heart signals and for generating a reset signal in response to sensing said naturally occurring heart signals;

*P<sub>i</sub>* pulse generator means for generating stimulating pulses at a minimum pacing rate, including timing means for providing each stimulating pulse at the termination of an escape interval corresponding to the pacing rate and reset means responsive to said reset signal for resetting said timing means and restarting said escape interval;

*P<sub>i</sub>* means for measuring a chemical parameter of venous blood indicative of the level of cardiac output demanded by the patient's body and for providing an escape interval

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